

Draft Conditions

November 13, 2012

1. In issuing this permit, the MDEQ has relied on the information and data which the permittee has provided in connection with the permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete, or inaccurate, the MDEQ may modify, revoke, or suspend the permit, in whole or in part, in accordance with the new information.
2. The permittee is responsible for acquiring all necessary easements or rights-of-way before commencing any work authorized by this permit. All construction operations relating to or part of this project shall be confined to the existing right-of-way limits or other acquired easements.
3. The authority to conduct the activity as authorized by this permit is granted solely under the provisions of the governing act as identified above. This permit does not convey, provide, or otherwise imply approval of any other governing act, ordinance, or regulation, nor does it waive the permittee's obligation to acquire any local, county, state or federal approval, or authorizations necessary to conduct the activity.
4. Noncompliance with these terms and conditions, and/or the initiation of other regulated activities not specifically authorized by this permit shall be cause for the modification, suspension, or revocation of this permit, in whole or in part. Further, the MDEQ may initiate criminal and/or civil proceedings as may be deemed necessary to correct project deficiencies, protect natural resource values, and secure compliance with statutes.
5. If any change or deviation from the permitted activity becomes necessary, the permittee shall request, in writing, a revision of the permitted activity and/or mitigation plan from the MDEQ. Such revision requests shall include complete documentation supporting the modification and revised plans detailing the proposed modification. Proposed modifications must be approved, in writing, by the MDEQ prior to being implemented.
6. This permit may be transferred to another person upon written approval of the MDEQ. The permittee must submit a written request to the MDEQ to transfer the permit to the new owner. The new owner must also submit a written request to accept transfer of the permit. The new owner must agree, in writing, to accept all conditions of the permit. A single letter signed by both parties which includes all the above information may be provided to the MDEQ. The MDEQ will review the request and if approved, will provide written notification to the new owner.
7. Authority granted by this permit does not waive compliance requirements under Part 91, Soil Erosion and Sedimentation Control, of the NREPA.
8. Temporary soil erosion and sedimentation control measures shall be installed before

commencement of the earth change and shall be maintained daily. Temporary soil erosion and sedimentation control measures shall be maintained until permanent soil erosion and sedimentation control measures are in place and the area is stabilized. Permanent soil erosion and sedimentation control measures for all slopes, channels, ditches, or any disturbed area shall be installed within five (5) calendar days after final grading or the final earth change has been completed.

9. All raw areas resulting from the permitted construction activity shall be promptly and effectively stabilized with sod and/or seed and mulch (or other technology specified by this permit or project plans) in a sufficient quantity and manner so as to prevent erosion and any potential siltation to surface waters or wetlands.
 - a. All raw earth within 100 feet of a lake, stream, or wetland that is not brought to final stabilization by the end of the active growing season shall be temporarily stabilized with mulch blankets by September 20th.
 - b. All dredge/excavated spoils including organic and inorganic soils, vegetation, and other material removed shall be placed on upland (non-wetland, non-floodplain or non-bottomland), prepared for stabilization, and stabilized with sod and/or seed and mulch in such a manner so as to prevent and ensure against erosion of any material into any waterbody, wetland, or floodplain.
 - c. During removal or repair of the existing structure, every precaution shall be taken to prevent debris from entering any watercourse. Any debris reaching the watercourse during the removal and/or reconstruction of the structure shall be immediately retrieved from the water. All material shall be disposed of in an acceptable manner consistent with local, state, and federal regulations.
 - d. Prior to the removal of the existing structures located in the water or wetland; cofferdams of steel sheet piling, gravel bags, clean stone, coarse aggregate, or concrete barriers shall be installed to isolate all construction activities from the water. The barriers shall be maintained in good working order throughout the duration of the project. Upon project completion, the accumulated materials shall be removed and disposed of at an upland site. All cofferdam and temporary steel sheet pile shall then be removed in its entirety, unless specifically shown to be left in place on the plans. Cofferdam and sheet pile that is left in place shall be cut off at the elevation shown on the plans and shall be a minimum of 1 foot below the stream bottom.
 - e. The existing structure shall be kept open to pass the stream flow during removal of the existing road fill.
 - f. The placement of the new culvert and the initial placement of fill in the stream shall be done immediately after removal of the existing culvert. The placement shall be conducted in such a manner that all flow is immediately passed through

the new culverts, allowing the major placement of fill to be done in the dry or in still water where erosion and siltation will be minimized. The fill material used in this initial placement shall be washed gravel, coarse aggregate, or rock and shall be placed at both ends of the culvert to a level above normal water level before backfill material is placed. Bagged concrete riprap may be used for end fill.

- g. The culvert shall be installed to align with the centerline of the existing stream at both the inlet and outlet ends, and must be recessed to allow a natural substrate throughout the structure, unless otherwise indicated in the conditions of this permit.
- h. Road fill side slopes shall not be steeper than 1-on-2 (1 vertical to 2 horizontal) except where headwalls of reinforced concrete, mortar masonry, dry masonry, or other acceptable methods are used.
- i. Road fill side slopes terminating in the stream and any raw stream banks resulting from this construction shall be immediately riprapped to the ordinary high water mark. The exposed bank above the ordinary high water mark and all other raw slopes and ditches draining directly to the stream must be protected with riprap over geotextile filter fabric or stabilized with appropriate Best Management Practices based on site conditions as necessary to provide effective erosion protection.
- j. If the project, or any portion of the project, is stopped and lies incomplete for any length of time other than that encountered in a normal work week, every precaution shall be taken to protect the incomplete work from erosion, including the placement of temporary gravel bag riprap or other acceptable temporary protection.
- k. No work shall be done in the stream during periods of above-normal flows except as necessary to prevent erosion.
- l. Unless specifically stated under the "Permitted Activity" of this permit, construction pads, haul roads, temporary structures, or other structural appurtenances to be placed in a wetland or on bottomland of the waterbody are not authorized and shall not be constructed unless authorized by a separate permit or permit revision granted in accordance with the applicable law.
- m. Prior to the start of construction, all adjacent non-work wetland areas shall be protected by properly trenched filter fabric fence to prevent sediment from entering the wetland. Orange construction fencing shall be installed to prohibit construction personnel from entering or performing work in these areas. Fencing shall be maintained daily throughout the construction process. Upon project completion, the accumulated materials shall be removed and disposed of at an upland site. The erosion barrier shall then be removed in its entirety and the area

restored to its original configuration and cover.

10. All fill/backfill shall consist of clean inert material that will not cause siltation nor contain soluble chemicals, organic matter, pollutants, or contaminants. All fill shall be contained in such a manner so as not to erode into any surface water, floodplain, or wetland. All raw areas associated with the permitted activity shall be stabilized with sod and/or seed and mulch, riprap, or other technically effective methods as necessary to prevent erosion.
11. Equalization culverts shall be placed at an elevation within the roadway to insure that water will reach equal levels on either side of the road.
12. The proposed channel relocation shall be constructed in the dry. Upstream and downstream plugs shall remain in place until the new channel is capable of handling flows without causing siltation.
13. Graded riprap consisting of clean stone or cut rock shall be placed in sufficient quantity over geotextile fabric so all voids are filled to provide adequate erosion protection. The use of broken concrete or asphalt is not authorized at this site.
14. A storm water discharge permit may be required under the Federal Clean Water Act for construction activities that disturb one or more acres of land and discharge to surface waters. For sites over five (5) acres, the permit coverage may be obtained by a Part 91, Soil Erosion and Sedimentation Control (SESC), permit and filing a "Notice of Coverage" form to the MDEQ's Water Resources Division. For sites with disturbance from one acre up to five acres, storm water coverage is automatic once the SESC permit is obtained. These one to five acre sites are not required to apply for coverage, but are required to comply with storm water discharge permit requirements. Information on the storm water discharge permit is available from the Water Bureau's Storm Water Permit Program at www.michigan.gov/degwater. Select "surface water" and then select "storm water."
15. **Any work in regulated areas authorized by this permit is prohibited until an acceptable final stream mitigation plan is submitted by the permittee and approved by the MDEQ.** The mitigation plan shall include design details for the 10,500 linear feet of natural stream channel to divert flows around the east and west sides of the tailings disposal facility. The plan shall also include details of the 4 acres of wetlands to be incorporated into the belt width floodplain of these natural stream channel diversions and those details shall follow the requirements for wetland mitigation design described under condition number 17 below. The stream mitigation plan shall also include a written agreement with the appropriate agency (Ontonagon County Road Commission) with a timeline for replacement of the County Road 527 crossing of Two Mile Creek. A separate application shall be submitted for that project.
16. Permittee agrees to request an amendment to their Part 632 Mining permit through the MDEQ Office of Geological Survey Division to reflect changes that have occurred in their

mine plan to minimize the potential for subsidence. Permittee also agrees to request a change in the wording of their Part 632 permit that will require them to take corrective action for any negative impacts on any surface area due to subsidence, to final grade the TDF cap in accordance with this application, to monitor Lehigh Creek for erosion and correct any problems found and to monitor all streams over the mine workings prior to their discharge to Lake Superior.

17. Wetland Preservation/Mitigation

- a. **Any work in regulated areas authorized by this permit is prohibited until an acceptable final wetland mitigation plan is submitted by the permittee and approved by the MDEQ.**
- b. The wetland mitigation plan must contain:
 - 1) Wetland mitigation goals and objectives, including the acreage to be restored, created, or preserved by ecological type and a description of the wetland to be impacted.
 - 2) Characterization of the existing conditions at the proposed wetland mitigation site including:
 - 3) A description of the topography, soils, hydrology, and vegetation.
 - 4) A plan view that includes topographic information (at one (1) foot contour intervals), roads, trails, structures, property lines, directional arrows, scale, and the exact size and boundaries of existing wetlands, streams, and floodplain to the 100-year elevation.
 - 5) Typical cross-sections.
 - 6) The proposed wetland mitigation design including:
 - 7) A description of the sources of hydrology, the source and type of soil amendments, wetland vegetation establishment, and wildlife structures.
 - 8) A plan view showing all of the proposed conditions of the mitigation site including all contour elevations (at one (1) foot contour intervals), structures, the type and size of all proposed wetland areas, property lines, directional arrows, scale, and the conservation easement area.
 - 9) Typical cross-sections.
 - 10) A water budget of inputs and outputs to the proposed wetland (e.g., precipitation, groundwater, runoff, evapotranspiration).
 - 11) A vegetative establishment plan which includes a plan view, methods, and species list with scientific and common names, and source of any plant or seed stock.

- 12) Locations of vegetative sampling transects, photo points, monitoring wells, and staff gauges for monitoring should be shown on a plan view.
 - 13) A schedule for completion of the mitigation site (e.g., initiation, planting, completion) and the site preparation and soil erosion/sedimentation control methods to be used during construction.
 - 14) Information on current site ownership and provisions for the long-term protection of the site including methods to be used to prevent and control the establishment of invasive plant species, to prevent over-grazing of vegetation, and to remove trash.
- c. The mitigation site shall not be fine graded, but shall be left in a rough grade state (allowing for the establishment of micro-topography). Any planting or seeding of the mitigation site must consist of native Michigan plant materials.
 - d. It is recommended that the permittee install a water control structure that can manipulate the water levels in 2-6 inch increments. The failure to install adequate water control structures may lead to the need to re-grade the entire mitigation area should the hydrology establish differently than shown on the approved mitigation plans.
 - e. The permittee shall notify the MDEQ's District Office, in writing and within 20 days of completion of each of the following items:
 - 1) final grading
 - 2) seeding and plant installation
 - f. In the event the permitted activity is begun but not completed, the permittee or owner of record shall remain responsible for completion of the mitigation wetland and associated conditions, as determined by the MDEQ. Such determinations shall be based upon the extent of the disturbance to the existing wetlands.
 - g. Should the mitigation wetland fail to become established after two complete growing seasons, or fail to progress satisfactorily towards a self-sustaining wetland system as required by this permit, the permittee shall:
 - 1.) Assess the problem and its probable causes;
 - 2.) develop reasonable and necessary corrective measures as a revision to original plans;
 - 3.) submit proposed corrective measures to the MDEQ for confirmation and approval within 60 days of identification of the problem; and
 - 4.) upon MDEQ approval, implement corrective measures.

Additional mitigation monitoring may be required to evaluate the success of the corrective measures.

18. Wetland Mitigation Performance Standards

The following performance standards will be used to evaluate the mitigation wetland:

- a. Construction has been completed in accordance with the MDEQ's approved plans and specifications included in the permit and mitigation plan.
- b. The mitigation wetland is characterized by the presence of water at a frequency and duration sufficient to support a predominance of wetland vegetation and the wetland types specified at the end of the monitoring period.
- c. A layer of high-quality topsoil, from the A horizon of an organic or loamy surface texture soil, is placed (or exists) over the entire wetland mitigation area at a minimum thickness of six (6) inches.
- d. The mitigation wetland shall be free of oil, grease, debris, and all other contaminants.
- e. A minimum of six (6) habitat structures, consisting of at least three (3) types, have been placed per acre of mitigation wetland. At least 50 percent of each structure shall extend above the normal water level. The types of acceptable wildlife habitat structures are:
 - 1.) Tree stumps laid horizontally within the wetland area. Acceptable stumps shall be a minimum of 6 feet long (log and root ball combined) and 12 inches in diameter.
 - 2.) Logs laid horizontally within the wetland area. Acceptable logs shall be a minimum of 10 feet long and 6 inches in diameter.
 - 3.) Whole trees laid horizontally within the wetland area. Acceptable whole trees shall have all of their fine structure left intact (i.e., not trimmed down to major branches for installation), be a minimum of 20 feet long (tree and root ball), and a minimum of 12 inches in diameter at breast height (DBH).
 - 4.) Snags which include whole trees left standing that are dead or dying, or live trees that will be flooded and die, or whole trees installed upright into the wetland. A variety of tree species should be used for the creation of snag habitat. Acceptable snags shall be a minimum of 20 feet tall (above the ground surface) and a minimum of 12 inches DBH. Snags should be grouped together to provide mutual functional support as nesting, feeding, and perching sites.
 - 5.) Sand mounds at least 18 inches in depth and placed so that they are surrounded by a minimum of 30 feet of water measuring at least 18 inches in depth. The sand mound shall have at least a 200 square foot area that is 18 inches above the projected high water level and oriented to receive maximum sunlight.
- f. The mean percent cover of native wetland species in the herbaceous layer at the end of the monitoring period is not less than:

60 percent for emergent wetland.

80 percent for scrub-shrub wetland.

80 percent for wet meadow wetland.

80 percent for forested wetland.

Extensive open water and submergent vegetation areas having no emergent and/or floating vegetation shall not exceed 20 percent of the mitigation wetland area. Extensive areas of bare soil shall not exceed five percent of the mitigation wetland area. For the purposes of these performance standards, extensive refers to areas greater than 0.01 acre (436 square feet) in size.

The total percent cover of wetland species in each plot shall be averaged for plots taken in the same wetland type to obtain a mean percent cover value for each wetland type. Plots within identified extensive open water and submergent areas, bare soil areas, and areas without a predominance of wetland vegetation shall not be included in this average. Wetland species refers to species listed as facultative and wetter (FAC, FAC+, FACW-, FACW, FACW+, OBL) on the U.S. Fish and Wildlife Service's "National List of Plant Species That Occur in Wetlands" for Region 3.

- g. The mitigation wetland supports a predominance of wetland vegetation (as defined in the "MDEQ Wetland Identification Manual") in each vegetative layer, represented by a minimum number of native wetland species, at the end of the monitoring period. The minimum number of native wetland species per wetland type shall not be less than:

15 species within the emergent wetland.

15 species within the scrub-shrub wetland.

20 species within the wet meadow wetland.

15 species within the forested wetland.

The total number of native wetland plant species shall be determined by a sum of all species identified in sample plots of the same wetland type.

- h. At the end of the monitoring period, the mitigation wetland supports a minimum of:

Three hundred (300) individual surviving, established, and free-to-grow trees per acre in the forested wetland that are classified as native wetland species and consisting of at least three

different plant species. Three hundred (300) individual surviving, established, and free-to-grow shrubs per acre in the scrub-shrub wetland that are classified as native wetland species and consisting of at least four different plant species. Eight (8) native wetland species of grasses, sedges, or rushes in the wet meadow wetland.

- i. The mean percent cover of invasive species including, but not limited to, *Phragmites australis* (Common Reed), *Lythrum salicaria* (Purple Loosestrife), and *Phalaris arundinacea* (Reed Canary Grass) shall in combination be limited to no more than ten (10) percent within each wetland type. Invasive species shall not dominate the vegetation in any extensive area of the mitigation wetland.

If the mean percent cover of invasive species is more than ten (10) percent within any wetland type or if there are extensive areas of the mitigation wetland in which an invasive species is one of the dominant plant species, the permittee shall submit an evaluation of the problem to the MDEQ. If the permittee determines that it is infeasible to reduce the cover of invasive species to meet the above performance standard, the permittee must submit an assessment of the problem, a control plan, and the projected percent cover that can be achieved for review by the MDEQ. Based on this information, the MDEQ may approve an alternative invasive species standard. Any alternative invasive species standard must be approved in writing by the MDEQ.

If the mitigation wetland does not satisfactorily meet these standards by the end of the monitoring period, or is not satisfactorily progressing during the monitoring period, the permittee will be required to take corrective actions.

19 Wetland Mitigation Monitoring

The permittee shall monitor the wetland mitigation for a minimum of five (5) years following grading, planting, and introduction of hydrology. A monitoring report, which compiles and summarizes all data collected during the monitoring period, be submitted annually by the permittee. Monitoring reports shall cover the period of January 1 through December 31 and be submitted to the MDEQ prior to January 31 of the following year. The permittee shall conduct the following activities and provide the information collected in the monitoring reports:

- a. Measure inundation and saturation at all staff gauges, monitoring wells, and other stationary points shown in the mitigation plan monthly during the growing season. Hydrology data shall be measured and provided at sufficient sample points to accurately depict the water regime of each wetland type.
- b. Sample vegetation in plots located along transects shown in the mitigation plan once between July 15 and August 31. The number of sample plots necessary within each wetland type shall be determined by use of a species-area curve or other approach

approved by the MDEQ. The minimum number of sample plots for each wetland type shall be no fewer than five (5). Sample plots shall be located on the sample transect at evenly spaced intervals or by another approach acceptable to the MDEQ. If additional or alternative sample transects are needed to sufficiently evaluate each wetland type, they must be approved in advance in writing by the MDEQ.

- c. The herbaceous layer (all non-woody plants and woody plants less than 3.2 feet in height) shall be sampled using a 3.28 foot by 3.28 foot (one square meter) sample plot. The shrub and tree layer shall be sampled using a 30-foot radius sample plot. The data recorded for each herbaceous layer sample plot shall include a list of all living plant species, and an estimate of percent cover in five (5) percent intervals for each species recorded, bare soil areas, and open water relative to the total area of the plot. The number and species of surviving, established, and free-to-grow trees and surviving, established, and free-to-grow shrubs shall be recorded for each 30-foot radius plot.
- d. Provide plot data and a list of all the plant species identified in the plots and otherwise observed during monitoring. Data for each plant species must include common name, scientific name, wetland indicator category from the U.S. Fish and Wildlife Service's "National List of Plant Species That Occur in Wetlands" for Region 3, and whether the species is considered native according to the Michigan Floristic Quality Assessment (Michigan Department of Natural Resources, 2001). Nomenclature shall follow Voss (1972, 1985, and 1996) or Gleason and Cronquist (1991).
- e. The locations of sample transects and plots shall be identified in the monitoring report on a plan view showing the location of wetland types. Each transects shall be permanently staked at a frequency sufficient to locate the transect in the field.
- f. Delineate any extensive (greater than 0.01 acre in size) open water areas, bare soil areas, areas dominated by invasive species, and areas without a predominance of wetland vegetation, and provide their location on a plan view.
- g. Document any sightings or evidence of wading birds, songbirds, waterfowl, amphibians, reptiles, and other animal use (lodges, nests, tracks, scat, etc.) within the wetland noted during monitoring. Note the number, type, date, and hour of the sightings and evidence.
- h. Inspect the site, during all monitoring visits and inspections, for oil, grease, man-made debris, and all other contaminants and report findings. Rate (e.g., poor, fair, good, excellent) and describe the water clarity in the mitigation wetland.
- i. Provide annual photographic documentation of the development of the mitigation wetland during vegetation sampling from permanent photo stations located within the mitigation wetland. At a minimum, photo stations shall be located at both ends of each

transect. Photos must be labeled with the location, date photographed, and direction.

- j. Provide one-time photographic documentation during construction of the placement of at least six (6) inches of high quality soil, from the A horizon of an organic or loamy surface texture soil, across the site.
- k. Provide the number and type of habitat structures placed and representative photographs of each structure type.
- l. Provide a written summary of data from previous monitoring periods and a discussion of changes or trends based on all monitoring results. This summary shall include a calculation of the acres of each wetland type established, a plan view drawing depicting each ecological type, and identification of all performance standards and whether each standard has been met.
- m. Provide a written summary of all the problem areas that have been identified and potential corrective measures to address them.

A qualified individual able to identify plants to genus and species must conduct the wetland monitoring. The MDEQ reserves the right to reject reports with substandard monitoring data.

- n. The MDEQ will determine if the performance standards have been met. If the performance standards have not been met, the MDEQ may require subsequent annual monitoring until final approval from the MDEQ can be granted.
 - o. Prior to final written approval of the mitigation by the MDEQ, the permittee shall submit the following:
 - 1) A written statement that the mitigation is complete and request for final approval of the mitigation.
 - 2) A copy of the permit.
 - 3) "As-built" plans and specifications signed and sealed by a registered surveyor or licensed engineer.
 - 4) A surveyed boundary of the established wetland within the mitigation area, including the total acreage of the mitigation wetland and the acreage of each type of wetland created.
 - 5) Complete all monitoring requirements including the submittal of all required monitoring reports.
20. The permittee shall, as a primary condition of this permit, mitigate the loss of 58.11 acres of wetland. The wetland impacts include 7.5 acres of impact to wetland

community types classified as S3 or rarer by the Michigan Natural Features Inventory. These must be mitigated at a 12:1 preservation ratio. This shall be presented in a table that includes acreage of community type impacted, acreage of community type preserved, acreage of T&E Species area impacted, acreage of T&E species area preserved. A table shall be provided in the final plan showing the above ratios plus other wetland mitigation which meets the proper preservation mitigation ratio of at least 10:1.

21. In order to mitigate for the direct and/or indirect impacts to 58.11 acres of wetland, the permittee shall preserve 602 acres of high quality wetland which shall include the preservation of 498 acres of S3 or rarer wetland community types, and 218 acres of upland buffer into a permanent conservation easement. The permittee shall also create, based on approved plans, 18.3 acres of wetland. Of that total, 11.7 forested acres and 2.6 acres of emergent wetlands will be created in the vicinity of the Gipsy Creek impoundment. The remaining 4 acres will be created in association with the east and west tailings disposal facility diversions.
22. The permittee shall execute a conservation easement over all wetland preservation and creation areas in a form identical to the conservation easement model on the MDEQ's website at www.michigan.gov/wetlands. The original executed conservation easement and associated exhibits must be sent to the MDEQ for review and recording prior to commencement of any permitted work. Send to: Conservation Easement Coordinator, MDEQ, Water Resources Division, P.O. Box 30458, Lansing, Michigan, 48909, with a copy of the executed easement mailed to the District Office.
23. The permittee shall provide the following documentation of ownership for the wetland preservation areas. This documentation must be submitted with the original executed conservation easement to the Conservation Easement Coordinator at the above address.
 - a. A title report or title opinion that provides 50-year ownership history including copies of all deeds, encumbrances, easements, severed mineral rights, and other pertinent documents.
 - b. A written statement from the property owner that there are no easements, encumbrances, or transfers of the property, in whole or in part, not disclosed in the title search or ownership history.
 - c. Subordination of any property interest (e.g., mineral rights, mortgages, easements) that would interfere with establishment and protection of the conservation easement.
 - d. A title insurance policy insuring the conservation easement area in the name of the MDEQ, in an amount determined by the MDEQ.
 - e. A copy of the warranty deed.
 - f. If the property owner is a company, documentation that the person executing the conservation easement has the authority to convey land on behalf of the company.
24. The permittee may request in writing a permit revision to extend the time deadline for submittal of the conservation easement. Such permit revision shall be considered a minor permit revision pursuant to Section 30313b and must be accompanied by the appropriate fee.

25. The conservation easement boundaries shall be demarcated by the placement of signage along the perimeter. The signage shall be placed at an adequate frequency, visibility, and height for viewing, made of a suitable material to withstand climatic conditions, and should be replaced as needed. The signage shall include the following bolded language:

WETLAND CONSERVATION EASEMENT

NO CONSTRUCTION OR PLACEMENT OF STRUCTURES ALLOWED.

NO MOWING, CUTTING, FILLING, DREDGING OR

APPLICATION OF CHEMICALS ALLOWED.

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

26. Except as otherwise provided by this permit or approved in writing by the MDEQ, the following activities are prohibited in perpetuity within the conservation easement areas: alteration of surface topography, creation of paths, trails, or roads; placement of fill, dredging, or excavation; drainage of surface or groundwater; construction or placement of any structure; plowing, tilling, or cultivating the soils or vegetation; cutting, removal, or alteration of vegetation; including the planting of non-native plant species; ranching, grazing, farming; use of chemical pesticides, fungicides, herbicides, or other chemical treatment; construction of unauthorized utility or petroleum lines; storage or disposal of garbage, yard waste, trash, debris, abandoned equipment; accumulation of machinery or other waste materials; use or storage of off-road vehicles; placement of billboards or signage; use of the wetland for the dumping of untreated storm water (except as otherwise allowed in this permit); or actions or uses detrimental or adverse to water conservation and purity, and fish, wildlife, or habitat preservation.

27. The permittee shall submit an surety bond or letter of credit to the MDEQ in a form identical to the financial assurance models on the MDEQ's website at www.michigan.gov/wetlands in the amount of \$_____ to ensure that the conservation easements are recorded, signs are posted, site enhancement measures are completed, a management plan is provided, baseline conditions are documented, an adequate stewardship agreement and funds have been established, and all other mitigation actions are performed as required to comply with the requirements and conditions of this permit. The financial assurance document shall be provided to and accepted by the MDEQ prior to signature of this permit by the MDEQ.

Upon request of the permittee and with the submittal of adequate proofs, the MDEQ may release portions of the financial instrument in accordance with the following guidelines:

- a. 50% when adequate executed conservation easements are submitted to the MDEQ and recorded for all wetland preservation and creation areas.

- b. 50% when site management plans are completed, signs are posted, any site enhancement activities are completed, monitoring reports are provided, and a long term management plan and related stewardship agreements and endowment funds are established and have been submitted; and mitigation creation construction and planting is completed and approved by the MDEQ.
 - c. Prior to the transfer of this permit to another person, the new person must obtain and provide a financial instrument acceptable to the MDEQ in the name of the new person and in the amount required by this permit.
28. Baseline Ecological Report of Conservation Easement Area: The permittee shall submit a baseline ecological report for the preservation conservation easement area prior to the commencement of any work in regulated areas authorized by this permit. The baseline ecological report shall include a land use history, a current aerial photo, appropriate maps, and a plan view that depicts the property boundaries for the conservation easement area(s). The baseline report shall include a delineation of all wetland community types following The Natural Communities of Michigan: Classification and Description, Kost et al 2007, with acreage estimates for each community type. The information shall also include the location of natural features (streams, endangered plants or animals, etc.), existing and adjacent land uses (roads, utility lines, structures, vegetative buffer area, trails, etc.), areas of invasive species, drains or ditches, and other anthropogenic influences (stormwater, etc.). In addition, the baseline ecological report shall include the following information for each wetland community:
- a. Photographic documentation collected from permanent photo stations located within each wetland community type as identified within the baseline ecological report. Photos must be labeled with the location (i.e., GPS Coordinates and shown on a site map), date photographed, and direction.
 - b. Plant community data collected within sample plots for each wetland community type shown within the baseline ecological report. The plot data shall identify plant species and absolute percent cover for each species within each plant strata (herbaceous, shrub, tree overstory) located within sample plots. The plant community data shall be collected once between May 15 and July 1 and once between August 1 and September 15.
 - c. The number of sample plots necessary within each wetland type shall be determined by use of a species-area curve or other approach approved by the MDEQ. The minimum number of sample plots for each wetland type shall be no fewer than fifteen (15), unless a correctly computed species area curve shows that fewer samples are sufficient. Sample plots shall be located on the sample transect at evenly spaced intervals or by another approach acceptable to the MDEQ. If additional or alternative sample transects are needed to sufficiently evaluate each wetland type, they must be approved in advance in writing by the MDEQ.

- d. The herbaceous layer (all non-woody plants and woody plants less than 3.28 feet in height) shall be sampled using a 3.28 foot by 3.28 foot sample plot. The shrub and tree layer shall be sampled using a 30-foot radius sample plot. The data recorded for each herbaceous layer sample plot shall include a list of all living plant species, and an estimate of absolute percent cover in five (5) percent intervals for each species, bare soil areas, and open water areas relative to the total area of the plot. The number and species of surviving, established, and free-to-grow trees and surviving, established, and free-to-grow shrubs shall be recorded for each 30-foot radius plot.
 - e. Provide plot data and a list of all the plant species identified in the plots and otherwise observed during monitoring. Data for each plant species must include common name, scientific name, wetland indicator category from, physiognomic classification, and whether the species is considered native according to the Michigan Floristic Quality Assessment (Michigan Department of Natural Resources, 2001). Nomenclature shall follow Robert W. Lichvar and John T. Kartesz. 2009. North American Digital Flora: National Wetland Plant List, version 2.4.0 (https://wetland_plants.usace.army.mil). U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH, and BONAP, Chapel Hill, NC.
 - f. The location of sample transects and plots shall be identified in the monitoring report on a plan view showing the location of wetland types. Each transect and sample plot shall be permanently and visibly staked at a frequency sufficient to locate the transect and sample plots in the field.
 - g. Observations of animal use of conservation easement areas.
 - h. Written summary of all data collected and discussion of any problem areas that identified and potential corrective measures to address them.
29. A qualified individual able to identify vegetation to genus and species must conduct the baseline ecological report. The MDEQ reserves the right to reject a report with substandard wetland monitoring data.
30. Conservation Easement Area Management Plan: A management plan outlining goals, methods, and measures to document actions taken to enhance the site; minimize or eliminate identified threats to the easement; and address any on-going site maintenance activities such as water control structures, invasive species control measures, etc. that will ensure the long term sustainability of the conservation easement area shall be submitted and approved by the MDEQ prior to initiating any work in regulated areas authorized by this permit. The plan shall include a schedule for completion of enhancement activities in the conservation easement site to remove or

reduce threats and to prevent the decline of wetland functions and values.

31. Documentation identifying specific threats to the preservation area, and performance standards for managing with each threat identified shall be provided. The Conservation easement Area Management plan containing all of the required information noted above shall be provided and approved by DEQ prior to the initiation of any permitted activities.
32. Long Term Management Plan: Active long term management, monitoring, and maintenance are determined to be necessary to ensure long term sustainability (e.g. prescribed burning, invasive species control, maintenance of water control structures, easement enforcement) of the preservation conservation easement area(s). The permittee shall submit by prior to initiation of any permitted activities, for MDEQ approval, a long term management plan for all approved conservation easement areas. The long-term management plan shall include provisions for monitoring, placement and maintenance of signs and fencing, periodic inspection of the site, removal of trash and debris, control of invasive species, blocking of illegal trails, maintenance of existing structures such as water control structures, annual reporting to the MDEQ, and any other site-specific management practices.
33. Stewardship Agreement: The permittee shall identify a responsible party to provide for the long term management, maintenance and monitoring of the preservation conservation easement area(s). A stewardship agreement with an appropriate third party (e.g. municipality or non-profit resource management agency such as a land conservancy) and the MDEQ, that is in compliance with the MDEQ approved long term management plan shall be established and recorded as Exhibit E to the Conservation Easement Agreement. A long term financing mechanism or endowment fund to provide for the long term management, monitoring and sustainability of the site shall be considered as part of the Stewardship Agreement to provide for the long term maintenance and sustainability of the Conservation Easement area(s). The stewardship agreement shall provide for annual inspections of the conservation easement area with annual inspection reports provided to the MDEQ. The inspection reports shall include a description of the overall condition of the easement area, any changes to the easement, any threats to the easement, and actions the steward is proposing to take to eliminate any threats.
34. This permit is being issued for the maximum time allowed under Part 301, Inland Lakes and Streams and Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, PA 451 of 1994, as amended, including all permit extensions allowed under the administrative rules R 281.813 and R 281.923. Therefore, no extensions of this permit will be granted. Initiation of the construction work authorized by this permit indicates the permittee's acceptance of this condition. The permit, when signed by the MDEQ, will be for a five-year period beginning at the date of issuance.
35. Upon the start of construction the applicant shall provide a summary at the end of each month to the MDEQ-WRD UP district office of work activities completed. Any problems affecting areas regulated by this permit shall also be included in the monthly summary

and reported immediately to the UP district office.

36. This permit shall become effective on the date of the MDEQ representative's signature. Upon signing by the permittee named herein, this permit must be returned to the MDEQ's Water Resources Division, for final execution.
37. Permittee hereby accepts and agrees to comply with the terms and conditions of this permit.

Printed Name and Title of Permittee